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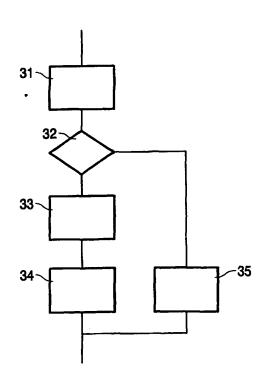
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[Continued on next page]

(54) Title: DATA PROCESSING IN WHICH CONCURRENTLY EXECUTED PROCESSES COMMUNICATE VIA A FIFO BUFFER



(57) Abstract: A processing circuit executes a data producing process and a data consuming process. data producing process produces a stream of data, the data consuming process consumes the stream of data concurrently with production of the stream. A first-in first-out buffer passes data from the stream between the data producing process and the data consuming process. The buffer comprises buffer memory, the buffer writes data-items from the stream in circular fashion into the buffer memory. A consuming process interface is arranged to process a command for making a data grain from the stream available to the data consuming process. The interface responds to the command by testing whether addresses of data within the grain to which access has to be gained wrap around in the circular FIFO buffer. The interface copies the grain from the FIFO buffer to the auxiliary memory region, on condition that the addresses wrap around, so that the wrap around is eliminated in the copied grain, The interface returns an indication to the consuming process to read the grain from the FIFO buffer when the addresses do not wrap around inside the grain, or an indication to read from the auxiliary memory region, when the addresses wrap around.



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EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT,

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INTERNATIONAL SEARCH REPORT

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PCT/IB2004/050412 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F5/06 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) G06F IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category 6 1-13 DE 195 11 774 A (SIEMENS AG) Y 2 October 1996 (1996-10-02) column 2 - column 43; figure 1 1-13 RUTTEN M J ET AL: "Eclipse: heterogeneous" Y multiprocessor architecture for flexible media processing" PARALLEL AND DISTRIBUTED PROCESSING SYMPOSIUM., PROCEEDINGS INTERNATIONAL, IPDPS 2002, ABSTRACTS AND CD-ROM FT. LAUDERDALE, FL, USA 15-19 APRIL 2002, LOS ALAMITOS, ĆA, ÚSA, IEEE COMPUT. SOC, ÚS, 15 April 2002 (2002-04-15), pages 130-137, XP010591169 ISBN: 0-7695-1573-8 cited in the application paragraph '03.1! paragraph '04.3! Patent family members are listed in annex. Further documents are listed in the continuation of box C. X Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such document of the such document is combined with one or more other. "O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. document published prior to the International filing date but "&" document member of the same patent family later than the priority date claimed Date of mailing of the international search report

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European Patent Office, P.B. 5818 Patentlaan 2

17 September 2004

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Information on patent family members

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